



Lake Buena Vista, Florida August 17-20, 2003

REAL WORLD — REAL SOLUTIONS



Workshop & Exposition



Workshop Sponsored by:

U.S. Department of Energy

Federal Energy Management Program

Co-sponsored by:

U.S. Department of Defense

U.S. General Services Administration

Mark your calendar now for Energy 2003!

Make plans now to join your colleagues from around the country at Energy 2003, the sixth annual national energy management workshop and exposition.

Federal, state, local government and private sector energy managers, procurement officials, engineers, utility representatives and others involved in energy management will learn about the latest strategies and products for saving energy in buildings. Expanded tracks and sessions this year cover such issues as acquisition, alternative financing, distributed generation, energy markets, energy security, federal leadership, fundamentals, energy alternatives, new technologies, O&M, renewable energy, sustainable design, transportation and water resource management.

More than 1,500 government and private sector energy management professionals attended Energy 2002 last June in Palm Springs. We expect an even bigger turn-out at Energy 2003 this August in Lake Buena Vista, Florida, near Orlando, as Energy 2003 will build on the success of past workshops by offering more tracks and sessions, a bigger product/service exposition, special



technical tours and more networking opportunities to help you learn from other energy professionals.

Don't miss out on this opportunity to network with your colleagues while hearing about the latest technologies, products and strategies that are saving energy in buildings, facilities, operations and vehicle fleets. Last year's attendees included more than 540 people from federal agencies (29 agencies were represented), 55 from utility

companies, 51 from the national laboratories, 39 federal, state and local government officials, 13 energy service company representatives and the rest from private industry, educational

and other energy-related organizations, along with 400 exhibitor personnel.

Visit our web site (www.energy2003.ee.doe.gov) for the latest information on the Energy 2003 workshop and exposition. If you're involved in implementing energy-saving programs in your agency or organization, you can't afford to miss Energy 2003. Register early to save money and guarantee your place in this popular program.

SPECIAL GUEST SPEAKER

John Powers, founder of the Powers of Motivation Institute, has worked with more than 1,000 major corporations and associations



on how to succeed in a changing world. He is the author of four best-selling books, including "The Junk Drawer, Corner Store, Front Porch Blues." John's business background includes producing his own musical for four years ("Do Black Patent Leather Shoes Really Reflect Up?"). He's been called a triple threat: he's as funny as the best stand-up comedians, his inspirational messages will enrich your personal life, and his information will enrich your professional life. Come to our workshop's closing lunch to hear John Powers' focus on humor, change, leadership, teamwork, creativity, problem-solving and effective communications.

What you need to know about Energy 2003

Who: Energy 2003 is sponsored by the U.S. Department of Energy's Federal Energy Management Program. Co-sponsors are the U.S. Department of Defense and the U.S. General Services Administration.

What: This is the sixth annual national energy management workshop and exposition. Attendees include federal, state, local and private sector energy managers, procurement officials, engineers and architects, energy service companies, transportation officials, utilities, and others involved in energy management around the

country. Here is your opportunity to learn about the latest cost-effective energy-saving, renewable energy and water efficiency products and equipment. By applying the products, equipment and services demonstrated at Energy 2003, you can improve the comfort, security, productivity and reliability of your facility and employees.

Where: Energy 2003 will be held at the Wyndham Palace Resort and Spa in Lake Buena Vista, Florida, inside the Walt Disney World Village and just 20 minutes from Orlando International Airport.

When: The program begins with an opening reception in the Exhibit Areas on Sunday, August 17, from 5 p.m. to 8 p.m., and concludes at 2 p.m. on Wednesday, August 20, following the Closing Plenary Luncheon. This year's program follows the format of the previous workshops. It includes optional pre- and post-workshop programs and special sessions, a Monday morning plenary session, product/service exposition through Tuesday and more than 60 presentations in 12 specialized learning tracks through Wednesday. There will also

General Information

Energy 2003 will be held in Lake Buena Vista, Florida, just minutes from Orlando – the world's Number One tourist destination. While many people think of the area as a kid's playground, with such popular theme parks as the Walt Disney World complex (including the Magic Kingdom, Epcot, Animal Kingdom and MGM Studios), Universal Studios, Sea World and more than 80 other attractions, it actually offers plenty to do for visitors of all ages. There are more than 3,800 restaurants in the area, 125 challenging golf courses, superb weather just about all year long, and more than 39 million square feet of retail space.

The workshop and exposition will be held at the Wyndham Palace Resort & Spa (1900 Buena Vista Drive, Lake Buena Vista, FL 32830-2206. 407-827-2727; Fax: 407-827-6070), 20 minutes from Orlando International Airport. Ask for the "Energy 2003" room block when making reservations (all rooms in the block are at the prevailing federal government per diem rate, which is available six days before and three days after the workshop as well).

Because space is limited, make your reservations early. The cut-off date for reservations for the Energy 2003 room block is July 24. To make reservations, call 407-827-2727 or 1-800-WYNDHAM. You can also make hotel reservations directly online from the Energy 2003 web site. Federal employees can



Wyndham Palace Resort & Spa

obtain a tax-exempt form at www.gsa.gov which they should bring to the hotel with them.

Regularly scheduled shuttle service is provided by Mears Transportation between the airport and the hotel (the current one-way fare is \$16 per adult, \$12 children 4-11). You can make arrangements at the airport or

call Mears Transportation at 407-423-5566.

Visit the Energy 2003 web site (www.energy2003.ee.doe.gov) for full information on the program, activities, guest speakers and other events. The web site will be continually updated between now and the workshop, so check back often for new information.

For information on sponsorships, contact Ken Sheinkopf at 321-638-1007, or sheinkopf@fsec.ucf.edu.

For information on exhibiting, contact Exhibit Promotions Plus at 410-997-0763, or energy@epponline.com (see page 22).

Note: the opinions and views expressed at the workshop and the optional workshop programs are not necessarily to be interpreted as official endorsement by

the U.S. Department of Energy, U.S. Department of Defense or the U.S. General Services Administration. Also, no representations, warranties or endorsements should be implied or inferred from the inclusion of a commercial/nonprofit entity in the product/services exposition.

be several networking events and optional technical tours.

Why: Energy 2003 is designed to help you do your job better by giving you details on the latest energy-saving strategies and products, opportunities to network with your colleagues to discuss new applications and strategies, and information from the experts on successful case studies and projects.

Cost: The registration fee is \$565. Reduced registration fees are available for "early-bird" registrations (\$465 for registrations received by June 2) and team discounts (\$420 each for four or more regis-

trants from the same organization). One-day registrations are also available for \$365. The workshop registration fees include all sessions, breaks, breakfasts and lunches, social functions, handout materials and admission to the exposition.

How to register: The easiest and most secure way to register is by visiting the workshop web site

www.energy2003.ee.doe.gov and registering online with a credit card on this secure web site. You can also fax your registration form (located on the inside back cover of this brochure) and credit card or other payment information (321-638-1010) or mail the form and payment information

(Energy 2003 Workshop, c/o Florida Solar Energy Center, 1679 Clearlake Road, Cocoa, FL 32922). If you have any questions or need more information, call JoAnn Stirling toll-free at 800-395-8574.

Please note that the registration form in this brochure and on the workshop web site is for workshop registrants only.

Exhibitors should contact Exhibit Promotions Plus at 410-997-0763 or energy@epponline.com. Speakers will be sent information on the special speaker registration form located on a speakers-only web site.

Specialized Learning Tracks

ACQUISITION

The contracting officer and procurement policy executive need to be informed of procurement requirements for energy-related products and services.

As the official representative of the government, the procurement official has the voting strength in any procurement action. It is thus essential that contracting personnel be involved early in the process of acquiring energy-related products and services. You will learn directly from federal contracting officers and acquisition experts about the various nuances of energy-related procurements. Experts will provide you with an understanding of how energy efficiency and sustainability relate to every acquisition—for products, services or construction. The information will be tailored for contracting personnel to provide the specialized knowledge needed to actively participate as a team member in the energy project development process. Other members of the energy project development team will also gain valuable insight into the contracting process.

ALTERNATIVE FINANCING

Real projects don't happen until someone agrees to foot the bill. Learn ways to bring your projects to life!

Come to this track to better understand your alternative financing options that include utility energy service contracts (UESC), energy savings performance contracts (ESPC), enhanced use-leasing, DOE's technology-specific Super ESPC vehicles and other strategies. We'll compare and contrast financing vehicles, find out how financial firms view federal projects, examine measurement and verification planning to see how that impacts project financing decisions and even look under rocks to help you develop your project. Project examples will include several national award winners. Because no single financing option is the right choice for all projects, we'll give you the tools you need to make the right decisions for your facility. Learn from your colleagues who've been there and back!

ENERGY MARKETS

"May you live in interesting times."

Here is your opportunity to hear a top-level briefing on energy markets with a focus on what federal facility and energy managers need to know to make sound decisions. Learn how to successfully tap financial incentives for energy efficiency, renewable energy and demand-response programs. Get the latest forecasts for each region on electric rates, capacity and energy commodity prices, along with a summary of current and forecast near-term energy market conditions. Hear reports on recent Federal Energy Regulatory Commission decisions regarding the wholesale electric

market structure, including analyses on how these changes affect price and reliability of wholesale power. Learn how utility system privatization is proceeding at DoD facilities and how DoD's new enhanced-use leasing authority may be used as an alternative management tool.

ENERGY SECURITY AND DISTRIBUTED GENERATION

Learn about key vulnerabilities and what can be done to address them.

America's energy infrastructure is certainly vulnerable to deliberate disruption or accidents. Experts will offer advice for improving security through on-site power generation, energy storage and backup systems. Federal leaders will discuss what worked, what didn't and what they would do differently next time. Distributed Generation (DG) and Combined Heat & Power (CHP) technologies are crucial components of a secure energy future. They save energy, offer reliable, high-quality power, reduce emissions and contribute to an infrastructure ready for the clean fuels of tomorrow. Get the latest on performance of large gas turbines, internal combustion engines, micro-turbines, fuel cells and other technologies. Discover how to tap state and federal resources to support distributed energy and guidelines to help determine the best distributed energy applications to meet your needs.

FEDERAL LEADERSHIP

Gain insight into the myriad federal policies, goals and mandates that affect your facility. Learn how to take advantage of the resources, assistance programs, and tools available to insure your success.

The federal government is leading the way to a more efficient future for our country. Since 1985, federal building energy use has decreased by more than 23 percent! Don't miss this opportunity to learn the essential elements of the National Energy Policy, Executive Orders and other emerging requirements for energy efficiency and greening the government. If your agency or facility isn't tracking its progress or meeting its energy efficiency goals, come discover how to take the helm and get on course with exciting discussions including the latest news on federal energy policy, how the many federal energy initiatives fit together and the inside track on getting recognition for your facility's accomplishments. You can use this vital information to improve your energy efficiency management program and investments and help your agency become an energy leader.

FUNDAMENTALS FOR ENERGY MANAGERS

Learn core skills for energy managers from these lessons on the tools necessary for working in energy efficiency.

Do you really know the meaning of the terms, calculations and methodologies you use every day to apply energy efficiency concepts and techniques in the workplace? Are you applying the right calculations? Are there other tools you could use to make your job easier? These lessons will give you a comprehensive and

well-rounded approach to the key terms and concepts used in the energy efficiency industry. We will start with the basic concepts and then show how they can be applied in everyday circumstances. Whether you are a new energy manager or have been around for a while, these lessons will provide key insights and value to help you do your job.

NAVIGATING ENERGY ALTERNATIVES

Learn how to use the available energy alternatives to meet the challenges facing America.

While trends shaping the nation's energy future suggest that we face substantial challenges in meeting economic, environmental and security goals, they also show that our country has found ways to improve energy productivity and efficiency as well as prevent pollution. Growth in global energy demand will strain the capacity of energy suppliers while international conflict and social turmoil in unstable oil-producing regions could disrupt oil markets, rapidly increasing oil prices. Fear of global climate changes or other energy-related environmental problems could cause widespread demand for more stringent measures to reduce greenhouse gas emissions or other risks from energy production and use. Come hear the good news: alternative fuels, utility restructuring, energy distribution and renewable energy are among the choices available to you. Join us and learn how to navigate these and other energy alternatives.

NEW TECHNOLOGIES

Hear about emerging and available new technology choices and how to choose the best ones for your buildings.

Learn how to select and make successful installations of modern technologies and systems, as well as how to get the most out of existing equipment. We'll introduce you to emerging as well as off-the-shelf technologies that work for new construction and retrofit projects. Technologies like cooling, comfort conditioning, energy storage, lighting and integrated open control systems will also be discussed. Discover techniques for accessing support for new projects and procurement options and learn about building envelope considerations such as managing interior humidity and solar load. Highlighted will be operational experiences with new and retrofit installations involving "whiz bang" technologies—which ones work, which don't, and which ones work but may not be practical for your facilities.

O&M FOR ENERGY EFFICIENCY

Pay attention to O&M in your facilities to maximize energy savings and building performance.

If you're one of those people who think O&M is mostly about screwdrivers, coffee and donuts, then you'll be surprised to find out that this often overlooked and under-funded aspect of facilities management is critical to achieving energy-efficiency goals and occupant satisfaction. Many studies of commercial buildings estimate an O&M-related energy savings potential of between 5

and 30 percent. This track will introduce you to many of the aspects of an effective O&M program, including best practices, auditing, metering, commissioning, controlling and contracting. This information will help you begin improving the operations of your buildings and realizing all the resulting benefits.

SUSTAINABLE BUILDING DESIGN

Learn how to implement sustainable design in your facility and lower the costs of construction and operation.

Hear about successful strategies for recycled buildings. Find out what other countries are doing to improve the environment. Learn how to implement sustainable design in both renovation and new construction. Speakers from the federal and private sector will show you how to design facilities to lower your energy costs. You will learn how to improve the design for better indoor air quality, understand the whole building design effort, and tie energy security into building design. Come to these sessions to learn from the experts on building design.

TRANSPORTATION

Travel through the heart of alternative fuel vehicle policies and programs, infrastructure, safety and fuel choices.

Using alternative fuels in cars, trucks and heavy-duty vehicles can make a significant impact on our environment, improve air quality, reduce the nation's dependence on foreign oil and meet Executive Order mandates. These sessions will show you a variety of vehicles from manufacturers that are widely available for public and fleet purchase to help you make the best choice. As leaders driving our nation to a secure tomorrow, come hear experts talk about ways that transportation and mobility can bring energy independence and freedom to America.

WATER RESOURCE MANAGEMENT

Preserve valuable water resources and save valuable dollars!

Whether you are new to water efficiency or need to know how to manage more difficult water-using processes, water resource professionals will help you identify and manage water use at your site. By showcasing some of the best examples in use at facilities around the country, you'll learn how to optimize site planning and design, create a facility water management plan and meet federal water conservation goals. Our speakers will show you how to reduce overall consumption and increase your savings potential in innovative ways. See how federal facilities can lead by example to preserve valuable water resources for generations to come.

Descriptions of all workshop sessions are listed by track on pages 4 – 21. Visit the web site for complete session descriptions and updated information.

Sessions

"Having come over from the U.K., I am privileged to have
This is a unique occasion where I can meet with other Navy energy

Acquisition

Tuesday, Session 5: 1:30 p.m. – 3 p.m.

HOW TO BUY GREEN/MANDATORY PRODUCTS

Intent: To inform contracting officials and program personnel about mandatory products and how to acquire them.

Description: Agency personnel may not be aware of the requirement to purchase certain energy-efficient items or how to go about acquiring them. Various mandatory products such as electronic appliances with stand-by power devices, energy efficient devices, bio-based products, environmentally preferred products and recycled products will be identified. Presenters will demonstrate both web and software-based methods to acquire such products and devices.

Presenters: Julie Winters, Environmental Protection Agency; Joan Glickman, Department of Energy; Ron Buckhalt, Department of Agriculture

Wednesday, Session 6: 8:30 a.m. – 10 a.m.

POWER PURCHASING TECHNIQUES

Intent: To demonstrate to contracting officers successful techniques for the purchase of natural gas, electricity, and green power.

Description: Energy commodity procurement is a somewhat specialized area of federal acquisition. Contracting officers from the General Services Administration and Defense Energy Support Center, who have considerable experience in the various aspects of energy procurement, will share their expertise on the market and the process of competitive buys. Green Tags are an available alternative to actual green power purchases. The creators of Green Tags will present the concept from A to Z.

Presenters: Ken Shutika, General Services Administration; Jake Moser, Defense Energy Support Center; Pam Field, Bonneville Environmental Foundation

Wednesday, Session 7: 10:30 a.m. – 11:30 a.m.

IMPACT OF CONTRACT TYPE ON UESC PROJECTS

Intent: To demonstrate the impact of contract type (service or construction) on UESC project cost.

Description: Selection of contract type (i.e., service or construction) will have an impact on UESC project cost. For instance, construction contracts require performance and payment bonds. Given the established, long-term relationship between the utility company and its federal customers, such bonds serve only to add cost to the project without providing any value to the government. Conversely, the GSA area-wide utilities contract, under which most UESC projects are accomplished, is a service contract that requires no bonding. The scope and nature of UESC projects will be discussed and support provided for the designation of all UESC projects as service contracts.

Alternative Financing

Monday, Session 1: 10:30 a.m. – 12:30 p.m.

THE BASICS

Intent: To explain ways your agency can fund a project; how the various alternative financing options work, and the resources and programs offered by the Department of Defense, General Services Administration, Federal Energy Management Program and others.

Description: Hear an overview and comparison of project financing alternatives, including GSA area-wide agreements, the Department of Energy Super Energy Savings Performance Contract (ESPC) option, utility basic ordering agreements and the Army Corps of Engineers' ESPC option. Find out where to get help as you get started. You'll learn about the necessary information needed to choose the financing mechanism that best fits your needs and about options available to you if a utility energy services contract or an ESPC doesn't meet your needs. Meet the key people to help you with any option you choose.

spent my time at Energy 2002 with fellow professionals.

people. A very rewarding event. My batteries are now recharged for another 12 months."

Bob Grieves

U.S. Naval Activities (U.K.)

Panelists: Mark Ewing, General Services Administration; Beth Dwyer, Department of Energy; Mary Colvin, National Renewable Energy Laboratory; Jim Haywood, U.S. Army Corps of Engineers; Frank Brown, Bonneville Power Administration

Monday, Session 2: 2:30 p.m. – 4 p.m.

ENHANCED-USE LEASING

Intent: To explain the enhanced-use leasing option for financing large capital-improvement projects (such as combined cooling, heat and power systems) at federal facilities.

Description: The enhanced-use lease authority is an asset-management technique available to both the Veterans Administration and Department of Defense facilities. The General Services Administration is also considering the use of this alternative financing technique. The Federal Energy Management Program is studying the potential for integrating enhanced-use lease with combined cooling, heat and power (CHP) projects as part of its existing/future programs. Under this arrangement, federal property is out-leased to the public or private companies so it can be used to provide services to federal or non-federal users. In return for this long-term use of federal assets and access to a non-federal market, the agency can receive facilities, space, services (including energy services), revenue or other in-kind consideration. You'll learn how this type of alternative financing works and how it can be applied to energy projects at federal facilities.

Speakers: Bob Eidson, ESG, Inc.; Steve Kleiman, Department of Defense

Tuesday, Session 3: 8:30 a.m. – 10 a.m.

ALTERNATIVE FINANCING CASE STUDIES

Intent: To show how ESPC- and UESC-financed projects work and to help energy managers learn from experiences with existing projects.

Description: You'll glean successes and lessons learned from two projects. One is utility-financed and involves two customers --

the U.S. Army garrison Fort Detrick and the National Cancer Institute -- teaming up to implement a comprehensive energy project. This effort won a 2002 Presidential Award for Leadership in Federal Energy Management. The other is a Veterans Administration project launched using the Department of Energy's Super ESPC financing vehicle. Discussions will be of interest to all energy managers evaluating their options in starting up energy projects under challenging conditions.

Presenters: Dennis Dougherty, SAIC; Jeff White, Veterans Administration

Tuesday, Session 4: 10:30 a.m. – 12 p.m.

UESC OR ESPC?

Intent: To compare ESPC and utility financing options with an even hand, enabling you to arrive at your own conclusions about which alternative is best for a given project.

Description: Two federal agency facility managers have chosen to use both utility-financed and ESPC projects at their facilities. How did they decide which projects were appropriate for their utility provider and which should be handled by an ESPC? How did they work out those deals to do what was best for their facility's energy efficiency? ESCO and utility partners involved in these projects will be in the audience to help address questions. Featured projects: Marine Corps Air Station Beaufort and Marine Corps Base Camp Lejeune (both are 2002 Federal Energy and Water Management Award winners).

Speakers: Neil Tisdale, MCAS Beaufort; Russ Dominy, Navy Facilities Engineering Service Center; Jim Sides, MCB Camp Lejeune

Sessions

(continued)

"Energy 2002 provided an enormous amount of valuable understanding of energy, conservation, and both long- and short-

Tuesday, Session 5: 1:30 p.m. – 3 p.m.

FINANCIER'S PERSPECTIVE

Intent: To help federal energy managers understand interest rate determination and get the best terms and conditions for their alternatively financed projects.

Description: Participants will get an "up-close" look at private-sector financing for federal energy projects. Experts from four firms specializing in federal projects will detail options available to agencies to lower the interest rate on projects and gain more favorable terms and conditions in project contracts. We'll take a look at the impact on risk/interest rate/cost of project of such factors as performance requirements, measurement and verification option requirements, contract term, and equipment/technology mix. Discussion will also include descriptions of current factors that impact an ESCO's ability to obtain financing, credit-worthiness of energy service companies and views of the investor market for future ESPC and utility energy services contract investment.

Panelists: Anita Molino, Bostonia Partners; Jeffrey Eckel, Hannon Armstrong; Bruce Gross, GE Vendor Financial Services; Alan Riefenberg, United Financial

Wednesday, Session 6: 8:30 a.m. – 10 a.m.

MEASUREMENT AND VERIFICATION PLANNING

Intent: To help federal energy and facility managers develop winning measurement and verification plans.

Description: Since compensation in ESPC projects is based on project energy savings, the law underlying the authority for federal facilities to enter into ESPCs requires that energy savings be verified, reducing the agency's risk. The challenge in designing a measurement and verification program for a project is to balance certainty of costs and savings with the value of the energy savings. We will take a look at that design balancing act from the point of view of an independent consultant, ESCO and federal agencies. Attendees will walk away with ideas for developing winning measurement and verification plans for their facilities.

Panelists: John Cowan, Environmental Interface, Ltd.; Venkat Kumar, Johnson Controls, Inc.; Darryl Matsui, U.S. Navy; Quinn Hart, U.S. Air Force

Wednesday, Session 7: 10:30 a.m. – 11:30 a.m.

DOE'S TECHNOLOGY-SPECIFIC SUPER ESPC PROGRAM

Intent: To introduce federal facility managers to the opportunity to use FEMP's Technology-Specific Super ESPCs to finance energy projects.

Description: Technology-Specific Super ESPCs focus on technologies that promise substantial energy savings and are well-suited for application in federal facilities. These Technology-Specific Super ESPCs give federal agencies ready access to quality sources of expertise and financing for energy projects. Descriptions of the new Biomass and Alternative Methane Fuels Super ESPC and the highly successful Geothermal Heat Pump Super ESPC, as well as an overview of the entire program will be featured.

Speakers: Tatiana Strajnic, Department of Energy; Chris Abbuehl, Department of Energy; Doug Culbreth, Department of Energy

information from various perspectives that provide a comprehensive term goals of our government and the marketplace.”

Gregory Kimble
Southern California Edison

Energy Markets

Tuesday, Session 5: 1:30 p.m. – 3 p.m.

SYSTEM BENEFITS FUNDING AND DEMAND RESPONSE PROGRAMS

Intent: To inform the attendees about financial incentives available to assist with energy efficiency improvements.

Description: Nearly half of the states offer financial incentives for deploying energy efficiency and renewable energy projects in commercial buildings. Learn how these incentives are funded, designed and delivered. Federal facilities are among those that benefited from these incentives. Because peak load management benefits both electric suppliers and end-use customers, they are increasingly available through several Independent System Operators and utilities. Commercial customers have been financially rewarded for cutting their peak electric loads and you have the opportunity to benefit from their experience.

Presenters: Chuck Goldman, Lawrence Berkeley National Laboratory; Ross Malme, Peak Load Management Alliance

Wednesday, Session 6: 8:30 a.m. – 10 a.m.

THE ENERGY SITUATION IN THE REGIONS AND HOT TOPICS

Intent: To inform the audience of key utility policies and operational backdrop issues.

Description: The varied electric load forecast, capacity and energy commodity prices from each region of the country will be described. Current conditions will be summarized, followed by a forecast of near-term predicted changes in the regions of the United States. Independent System Operator developments will be summarized and the significance of these developments on the economics and reliability of the electricity market will be described. Federal energy legislation and the Administration’s National Energy Policy will directly influence the way federal personnel manage

energy in buildings. Though meeting new efficiency goals and mandates for installing meters on all buildings are the most immediate possibilities, proposed legislation could set policies in motion that affect energy prices and reliability. Learn about the pace of electric re-regulation, the Federal Energy Regulatory Commission’s proposed Standard Market Design rules, energy industry financing and investment and changes to natural gas policy.

Presenter: Mike Warwick, Pacific Northwest National Laboratory

Wednesday, Session 7: 10:30 a.m. – 11:30 a.m.

UTILITY PRIVATIZATION UPDATE

Intent: To discuss efforts to privatize an additional \$20 billion of military utility systems.

Description: After a slow start and numerous lessons learned, the privatization of utility systems is picking up steam at military facilities across the country. Representatives from the Edison Electric Institute and the Department of Defense will deliver up-to-the-minute reports on this momentum. Presentations will describe the road to success, experiences in the field and current policy. Learn how to take part in this unique method to use private sector innovation and efficiencies to modernize infrastructure. Join panel members to discuss improvements in how DoD weighs the pros and cons of transferring ownership to the private sector.

Presenters: Capt. Richard Marrs, Department of Defense; Bill Eisele, South Carolina Electric and Gas Co.

"All speakers at Energy 2002 were extremely knowledgeable

Energy Security and Distributed Generation

Monday, Session 1: 10:30 a.m. – 12:30 p.m.

"WHAT? ME VULNERABLE?" ENERGY SECURITY IN THE FEDERAL SECTOR TODAY

Intent: To offer expert insights on common vulnerabilities in the system, both inside and outside the fence, how they could affect your operations and responsibilities to address them.

Description: How does your facility fit into the "big picture" of energy security? Think your UPS and diesel backup system ensure your energy supply? Think again. Teams from diverse sectors and agencies have scrambled to identify energy security vulnerabilities with some surprising findings since 9/11. Hear about their results, including details overlooked with potentially perilous consequences, and the analytical tools that can help you identify and prioritize energy security risks. Learn about the probability of failure of common energy systems and actions you can take to maximize reliability. Discover resources to help federal agencies address energy security. Become acquainted with federal policy, including EO 12656 which requires emergency plans and procedures for power outages at federal facilities.

Presenters: James F. McDonnell, Department of Energy; Massoud Amin, Electric Policy Research Institute; Stephen Fairfax, MTechnology, Inc.; Ken Shutika, General Services Administration

Monday, Session 2: 2:30 p.m. – 4 p.m.

TAKING ACTION: OPPORTUNITIES TO REDUCE RISKS

Intent: To learn about the broad range of strategies and technologies being used today by federal agencies to address energy security concerns in civilian and defense agencies.

Description: Discover how energy management and planning can address vulnerabilities while saving energy. Walk through examples of steps you can take to assess risks and prioritize actions as they relate to your core mission. Hear federal case studies about

different approaches to increase energy security. Get an overview of tools and technologies such as energy storage, dual-fuel capabilities, backup power and distributed generation, and learn how some federal sites are financing improvements to greatly increase energy security through the energy savings from base-loaded distributed energy systems.

Presenters: John Jester, Department of Defense; Peter Behrens, Great Lakes Naval Station; Tim Corbett, Social Security Administration

Tuesday, Session 3: 8:30 a.m. – 10 a.m.

"DIVERSE AND DISPERSE" STRATEGIES FOR OPTIMIZING ENERGY SECURITY

Intent: To learn about a broad array of commercially available technologies and services that cost less, work better and improve the environment while providing energy security for critical missions.

Description: America's existing energy infrastructure can be fatally vulnerable to deliberate disruption, as well as accidents. One key to mitigating these risks is achieving reliability through the efficient use of energy from diverse and dispersed resources. Learn what the "nines" of reliability represent, how many you really need and when and where. Understand the basics of power quality, reliability and availability and get an overview of the costs, benefits and financing options for the many different systems available today to offer backup power and services: UPS, power electronics, leased/contracted backup, utility options, batteries, flywheels, magnetic energy storage and distributed generation. Learn through case studies about technologies most likely to fit your needs and what it really costs to get those additional "nines" of reliability.

Speakers: Whit Allen, Sure Power Corp.; Ed Anderson, Florida Power and Light Co.; Gregg Dixon, Hess Microgen

of their subjects and were very well-prepared.”

Ronald Mares

EG&G Technical Services, Inc.

Tuesday, Session 4: 10:30 a.m. – 12 p.m.

THE CASE FOR DG/CHP--WILL IT WORK FOR YOU?

Intent: To provide an introduction to on-site power, why it merits consideration in federal facilities and resources to support your projects.

Description: Why is distributed generation/combined heat and power (DG/CHP) such a hot topic? Interconnected, on-site power can enhance security, improve air quality and help meet the growing demand for energy while saving money. Learn the basic rules for determining whether DG/CHP offers economic advantages at your facility and where to go to get financial assistance. We'll tell you about funding, tools and services (many free) to help federal sites identify and successfully implement a distributed energy project. Get an update on government support programs, state incentives and recent progress on key policy issues affecting DG/CHP deployment.

Presenters: Tom Casten, World Alliance for Decentralized Energy; Suzanne Watson, Northeast-Midwest Institute; Patrick Hughes, Oak Ridge National Laboratory

Tuesday, Session 5: 1:30 p.m. – 3 p.m.

NITTY-GRITTY NUMBERS: DG/CHP PERFORMANCE DATA

Intent: Get facts on efficiency, reliability, costs and benefits of technologies large and small, including the make-or-break issues for success.

Description: Federal managers need real information on system performance to make smart decisions for project investment. Learn about the capabilities and limitations of different commercial DG/CHP systems with hard data on costs, reliability, performance and emissions. Identify critical issues that can determine technology selection and how they've been addressed in federal projects. Separate the hype from reality for technologies including large and small internal combustion engines, gas turbines, renewable and packaged systems. Understand the numbers for efficiency, availability, reliability, emissions, cost per kW installed, O&M and “dollar savings” based on field data.

Panelists: Gary Nowakowski, Department of Energy; Bruce Hedman, Energy & Environmental Analysis, Inc.; Russ Dominy, Navy Facilities Engineering Service Center; Rob Thornton, International District Energy Association; Patti Garland, Oak Ridge National Laboratory; Robert Panora, Tecogen; Kevin DeGroat, McNeil Technologies, Inc.

Wednesday, Session 6: 8:30 a.m. – 10 a.m.

LESSONS LEARNED: CASE STUDIES FROM FEDERAL SITES AND THIRD-PARTY PARTNERS

Intent: To learn what's involved in major DG/CHP projects – from initial concept through design, financing, permitting, construction and operations – and discover options for sharing the burden.

Description: The good, the bad, and the other relevant facts related to designing, financing, building and operating DG/CHP projects using different approaches: federally owned and operated, federally owned and ESCO operated, and third-party owned and operated. You'll get answers you need from people who've been there and done that with DG/CHP. We'll discuss incentives offered by states and utilities for DG and CHP systems as well as barriers that can stop the show, and finish with a panel Q&A to cover any key topics not addressed by presentations.

Panelists: Steven Williford, General Services Administration; Christopher Potter, General Services Administration; Phil Smith, Sempra Energy Solutions; Thomas Smith, Equity Office Properties

Sessions

(continued)

"The information, introductions and contacts

Wednesday, Session 7: 10:30 a.m. – 11:30 a.m.

UPDATE ON EMERGING TECHNOLOGIES: FUEL CELLS AND MICRO-TURBINES

Intent: To learn what worked and what didn't (and at what cost) based on the experience to date at federal sites.

Description: Receive the latest information on the present status and future prospects for stationary fuel cells and micro-turbines. Get the scoop on costs, benefits and performance based on field data and the record at federal facilities. Find out what's happened with the 30 PAFC fuel cells since the DoD field tests concluded. Learn about new resources and programs available to continue supporting applied R&D at federal sites, including residential PEM fuel cells and micro-turbines. Get an updated list and specifications for commercially available fuel cells and micro-turbine equipment: sizes, costs, types, operating characteristics and emissions.

Presenters: Franklin H. Holcomb, U.S. Army Engineer Research & Development Center; Steve Gillette, Capstone Turbines, Inc.

Federal Leadership

Monday, Session 1: 10:30 a.m. – 12:30 p.m.

"AND THE WINNER IS..." GETTING THE RECOGNITION YOU DESERVE

Intent: To demonstrate how to showcase projects, prepare award applications and get the recognition you deserve.

Description: An important part of building a winning energy program is recognizing accomplishment. Promoting your program's success helps grease the skids for future project support and funding. Many times, potential award-winning projects and facilities either do not get submitted or do not get written up well enough to demonstrate your successes and achievements. See how winning projects can be acknowledged and documented to gain the recognition you deserve. Also included is a discussion on the

variety of recognition and awards programs available, including the Presidential Awards for Leadership in Federal Energy Management, the White House's "Closing the Circle Awards," the Federal Energy Management Program's "Energy and Water Management" and "Energy Showcase Awards," the U.S. Green Building Council's "Leadership in Energy and Environmental Design Program" and the Energy Star Program.

Presenter: Beth Shearer, Department of Energy

Monday, Session 2: 2:30 p.m. – 4 p.m.

MANDATES AND POLICIES, "WHAT YOU ALWAYS WANTED TO KNOW ABOUT ENERGY POLICY BUT WERE AFRAID TO ASK"

Intent: To learn about existing, new and emerging mandates, anticipated federal and state goals and how to set your priorities to meet these requirements.

Description: Do you know if you're in compliance with all federal energy guidelines? Learn the very latest on new and emerging energy policies and requirements and learn a few things about the requirements you already thought you knew. This session will enable you to better understand the framework for national policy including executive orders, legislation and other federal mandates for energy efficiency and greening of the government. You'll learn how to navigate your way through what can be confusing and sometimes overlapping requirements and how to set your priorities once you have determined how these requirements affect your site and agency. The information gleaned in this session is vital for you to shape your energy program planning, execution, and investments.

Presenters: Get Moy, Department of Defense; Shelley Fidler, Van Ness Feldman; John Howard, Executive Office of the President

made Energy 2002 worth every penny.”

Robert Eidson

Energy Systems Group

Tuesday, Session 3: 8:30 a.m. – 10 a.m.

GETTING YOUR MONEY’S WORTH AND MORE THROUGH SUSTAINABLE CONTRACTING

Intent: To provide hands-on training on model solicitations and contracts that impact energy and sustainability.

Description: Contracting out your construction or operations doesn’t need to be a barrier to sustainability and energy efficiency. This session will provide hands-on training for everyone – procurement, legal, financial, facility management and environmental professionals – to demonstrate how you can incorporate sustainability, including energy efficiency, into all of your service requirements. Performance-based service contracting requirements and standards can meet your needs and provide new opportunities for energy and water conservation. Other topics will include development of standards, incentives and deductions, and contract monitoring and measurement. This is definitely a “how-to” session where the attendees can participate, learn and take home models to use in your own facilities.

Presenters: Linda Mesaros, Mesaros Consulting; Dana Arnold, Office of the Federal Environmental Executive

Tuesday, Session 4: 10:30 a.m. – 12 p.m.

GETTING THE FUNDS YOU NEED FOR ENERGY EFFICIENCY AND A COMPREHENSIVE ENERGY STRATEGY

Intent: To learn what’s needed in a solid business case for funding, techniques for implementing an effective energy strategy and reporting to facilitate the budgeting process.

Description: One of the major challenges in operations is how to implement, operate and sustain energy efficiency projects within the constraints of the facility operations and maintenance budget. This session begins with the issues and opportunities and finishes with tips on how to achieve substantial improvements in operating efficiency within the confines of your agency’s budget. OMB’s new Section 55 requirements for obtaining budget information (incremental costs of buying green power, using LEED ratings, implementing energy-efficiency projects, etc.) as well as energy

scorecards and annual reporting will be covered. This is a tutorial on capital asset management and building a business case to get the funds you request.

Presenters: Robert Sandoli, Office of Management and Budget; Dave Muzio, Office of Management and Budget; Chris Tremper, McNeil Technologies, Inc.; David Guthrie, U.S. Fish and Wildlife Service

Tuesday, Session 5: 1:30 p.m. – 3 p.m.

FEMAC AND FEMP: FEDERAL FACILITY OPERATOR’S RESOURCE FOR SUCCESS

Intent: To provide essential information of programs and opportunities to federal facility owners and operators.

Description: The Federal Energy Management Advisory Committee and the Federal Energy Management Program provide valuable resources and services to facility owners and operators. Learn about these organizations, their programs, and how you can magnify your effectiveness by leveraging the opportunities they offer. Gain insight into the future programs that will provide valuable services to you.

Presenters: Mitch Rosen, Liberty Total Comfort Systems, Inc.; Robert Collins, TECO Energy; Mary Palomino, Salt River Project

Wednesday, Session 6: 8:30 a.m. – 10 a.m.

TOOLS AND PRACTICES FOR ACHIEVING THE BUILDINGS OF TOMORROW

Intent: To render a consolidated perspective on the various sustainability tools that are available.

Description: The plethora of available ratings and evaluation tools will be covered. Experts will provide insight on which ratings tools offer the best opportunity for you and how these tools relate to each other. LEED, Energy Star for Buildings, ASHRAE standards, ISO 14000 (the EMS standard), ANSI/MSE 2000 and other federal standards will be discussed. A “must attend” for beginners. Advanced users will gain greater insight into effectively sorting out how to apply these standards.

Sessions

(continued)

"Very consistent from year to year in quality and content.

Fantastic as always. From an educational perspective,

Presenters: Julie Winters, Environmental Protection Agency; Bobbie Lippiatt, National Institute of Standards; Mike MacDonald, Oak Ridge National Laboratory

Wednesday, Session 7: 10:30 a.m. – 11:30 a.m.

PLANNING FOR THE FUTURE

Intent: To learn how to guide your facility energy efficiency programs to readily accept future requirements.

Description: Facility operations and energy programs focus on existing operations, budgets, federal initiatives, mandates and policy. But what about future issues? Will your program be malleable and agile enough so that new constraints and requirements can be met without major program overhauls? Will your program be successful as normal personnel turnover occurs? It is vital for you to tailor energy programs and facility operations to not only address current needs and constraints but to also craft energy operations to easily accommodate future problems, mandates and requirements. Come listen to a vital perspective on developing programs that solve today's problems and embrace future challenges.

Presenters: Bill Meffert, Georgia Tech; Don Fournier, U.S. Army Civil Engineering Research Laboratory

Fundamentals for Energy Managers

Monday, Session 1: 10:30 a.m. – 12:30 p.m.

THE BIG PICTURE

Intent: To present an overall summary of federal policies, energy terms and utility operations.

Description: Learn about current legislative requirements and Executive Orders that affect federal facilities. Gain a new perspective on energy efficiency and water conservation in the context of

national and world politics. Explore how electricity and gas are generated and delivered for consumption and examine issues associated with energy metering and rate structures. Understand common utility billing terms and their consequences to your facility.

Presenters: Millard Carr, Energy Management Solutions, Inc.; Terry Niehaus, Lakeshore Consulting

Monday, Session 2: 2:30 p.m. – 4 p.m.

THE ABCS OF ENERGY, PART I

Intent: To understand operational and functional issues associated with lighting systems and lighting retrofits.

Description: Lighting systems are one of the most recognized technologies found in the workplace today. As in any specialized field, the lighting profession uses its own set of technical terms, methodologies and calculations. This hands-on learning experience will elaborate on the most significant lighting industry terms and their relationship to proper illumination, staff productivity and energy consumption. Understand how common lighting retrofit projects are accomplished. You will gain an appreciation for all of the steps involved in performing lighting retrofits, from design through disposal. Common pitfalls will be identified, along with best practices for performing retrofits.

Presenters: John Fettes, Effective Lighting Solutions; Stuart Berjansky, Advance Transformer Company

Tuesday, Session 3: 8:30 a.m. – 10 a.m.

THE ABCS OF ENERGY, PART II

Intent: To understand operational and functional issues associated with HVAC systems and HVAC retrofits.

Description: HVAC systems are energy intensive and typically included in energy reduction initiatives. Gain an understanding of typical HVAC opportunities in commercial and institutional facilities. Identify the differences between the most common HVAC systems and where those systems are applied. You will also gain an appreciation for all of the steps involved in performing HVAC-related

this conference is unequalled. Best conference around.”

Jim Sylvester
U. S. Coast Guard

projects, from design through commissioning. Common pitfalls and best practices for performing these projects will be discussed.

Presenters: Eben Twombly, kW Engineering; Frank Rowe, Progress Energy Solutions

Tuesday, Session 4: 10:30 a.m. – 12 p.m.

ENERGY UTILIZATION AND STRATEGIC PLANNING

Intent: To provide tools that affect energy utilization and create sustainable energy programs.

Description: The ability to manage energy consumption in response to system or economic conditions can be an effective tool to reduce energy costs. Learn the conventional terms and technologies used in implementing load management programs, along with common concepts such as interruptible load, curtailable load, peak-shaving and load shifting. Simple techniques to evaluate load data will also be explored. Understand the basic elements of successful and sustainable programs and recognize resources already in place to implement such programs. Identify the many tools that already exist to make implementing energy programs easier. Energy managers, regardless of their level of experience, will benefit from this discussion.

Presenters: James Kiriazes, Mactec Engineering; Clint Christenson, Johnson Controls, Inc.

Navigating Energy Alternatives

Monday, Session 1: 10:30 a.m. – 12:30 p.m.

MACRO BENEFITS FROM A MICRO-GRID

Intent: To see a vision of what energy alternatives might look like in a half-century and take a look at the benefits of owning and managing your own electric utility.

Description: We consume 27 years of stored solar energy every day. At this pace, demand will outstrip supply in the foreseeable future. What does the future hold and how can we make changes now that will make our energy future more sustainable? Micro-grids can help to stabilize and reduce the price of energy. Come hear micro-grid success stories and get started in the right direction. As you plan for your future needs, the information learned here will be a critical step in meeting your future challenges.

Presenters: Jerry Ginn, Sandia National Laboratories; Barry Moline, Florida Municipal Electric Authority; Chuck Linderman, Edison Electric Institute; Steve Kiesner, Edison Electric Institute

Monday, Session 2: 2:30 p.m. – 4 p.m.

THE TEXAS EXPERIENCE AND A NATIONAL PERSPECTIVE ON RESTRUCTURING

Intent: To learn about the Texas restructuring experience and how the national “standard market design” will affect you.

Description: Changes in the utility industry are making news around the country. Texas has been undergoing a metamorphosis through the implementation of a deregulated, competitive wholesale and retail electric marketplace. You will be provided an update on these changes and gain insight into the effects of deregulation on the environment as opposed to the typical vertically integrated markets. Learn how “standard market design” will affect the country’s wholesale market in terms of electricity restructuring. How you buy power is affected by all these changes, so don’t miss out on this important information.

Presenter: Sam R. Jones, Energy Reliability Council of Texas

Sessions

(continued)

"This has become the premier energy conference for federal
I always encourage the energy managers and coordinators

Tuesday, Session 3: 8:30 a.m. – 10 a.m.

THE GOOD, THE BAD AND THE UGLY OF POWER BUYING AND AGGREGATION

Intent: Learn how to buy power, obtain the best available tools and hear from experts on their experiences.

Description: Get up close and personal with the current trends and strategies of power buying and aggregation. A panel of experts will discuss the successes, failures and lessons learned by the federal and private sectors. Current opportunities for purchasing distribution services and what to do and not do in providing energy/facility managers with the proper tools for making wise decisions will be discussed. The full spectrum of the essential topics and power buying from purchasing and marketing perspectives will be discussed.

Presenters: Ken Shutika, General Services Administration; Linda Collins, General Services Administration; Lt. Col. Bill Wells, U.S. Air Force; Mike Warwick, Pacific Northwest National Laboratory

Tuesday, Session 4: 10:30 a.m. – 12 p.m.

ACQUIRING ENERGY ALTERNATIVES: PRESENT AND FUTURE

Intent: To show how to obtain wind and other renewable energy at little or no cost.

Description: Renewable energy can be cost-competitive with other traditional forms of power generation. Learn how the Air Force will save \$42 million over five years at one location, the benefits of partnering with local utilities to cut their renewable surcharge and the negotiating tactics to get the best deal. In addition, one of the nation's top wind experts will discuss industry trends and ways to acquire wind energy using your own land for generation.

Presenters: Michael Santoro, U.S. Air Force; Karen Conover, Global Energy Concepts

Tuesday, Session 5: 1:30 p.m. – 3 p.m.

AFFORDABLE HEAT AND POWER FROM THE SUN

Intent: To explore how solar heating and power are cost-effective alternatives to fossil fuels.

Description: Discover the new technologies in solar water heating and solar power, and how these advances can cut your energy and maintenance costs. Learn about solar water heating methods both under development and in production, and how to integrate photovoltaic power with energy conservation and energy management for greater savings.

Presenters: David Menicucci, Sandia National Laboratories; Janice Lin, PowerLight Corp.

Wednesday, Session 6: 8:30 a.m. – 10 a.m.

GEOHERMAL AND BIOMASS ENERGY -- TWO POWERFUL ALTERNATIVES

Intent: To demonstrate the extraordinary benefits of developing and using geothermal and biomass energy.

Description: Both direct-source geothermal and biomass energy are typically dependent on location, and are thus among the least-understood renewable energy alternatives. Using case studies, experts will explain the technologies and how you can take advantage of these resources while saving energy costs and protecting the environment.

Presenters: Frank Monastero, U.S. Navy; Rick Adcock, CH2MHILL

agency energy managers.

throughout HHS to attend this event each year.”

Scott Waldman

U.S. Department of Health & Human Services

Wednesday, Session 7: 10:30 a.m. – 11:30 a.m.

GEOEXCHANGE TECHNOLOGY - A POWER REDUCTION STRATEGY

Intent: To discuss the powerful energy-saving potential of geoechange (ground source heat pumps) technologies.

Description: You will see that geoechange technology is nearly always the lowest life-cycle choice for facility HVAC needs, with proven savings between 25 and 50 percent and maintenance costs significantly less than conventional HVAC systems. Improved indoor air quality and simple control systems provide the icing on the cake for these systems. Learn why this technology should always be the first HVAC consideration in both new and retrofit facility projects.

Presenters: Jack DiEnna, Jr., Geothermal Heat Pump Consortium; John Shonder, Oak Ridge National Laboratory

New Technologies

Monday, Session 1: 10:30 a.m. – 12:30 p.m.

NOT YOUR “60s” KIND OF COOL

Intent: To focus on getting the most energy efficiency from space-cooling equipment and on implementing progressive cooling system designs.

Description: Space cooling technology and equipment offerings have become increasingly efficient over the last several years. Avoid the same ones your grandfather used and take advantage of today’s best available technologies! Since cooling energy accounts for about half of a facility’s energy costs, it is important to know and understand the latest, greatest and not-so-great approaches. Learn about new technologies, energy efficient packaged air-conditioning units and internet communicating thermostats.

Presenters: Michael Ivanovich, HPAC Engineering Magazine; Brad Hollomon, Pacific Northwest National Laboratory; Phyllis White, U.S. Postal Service; Eldon Zeigler, Proation Systems; Michael West, Advantek Consulting

Monday, Session 2: 2:30 p.m. – 4 p.m.

LET YOUR CONTROLS FLY

Intent: To learn how to improve comfort while reducing energy costs using the latest control technology.

Description: This is the future of building energy management! Learn how the latest in control technology can improve thermal comfort and energy efficiency, and reduce maintenance costs at your large facility or group of small buildings. An “integrated open system” is based on an intelligent computer network that optimizes environmental quality and energy costs in response to occupant needs, equipment performance and energy price signals and alerts and debriefs operations and maintenance (O&M) personnel whenever intervention would be beneficial.

Presenters: Michael West, Advantek Consulting; Tony Sheaffer, Power Measurement; Dennis Kelsey, Johnson Controls, Inc.

Tuesday, Session 3: 8:30 a.m. – 10 a.m.

COMFORT: IT’S NOT YOUR GRANDFATHER’S BUILDING

Intent: To address the root of the comfort complaints and how to take the edge off this problem while saving energy, too.

Description: Even though air-conditioning is considered a mature technology, the number three subject of office complaints is temperature (behind “gossip” and “difficult boss”). Most people do not know that by tradition, a space is considered comfortable if 80 percent of the occupants do not complain. Learn how to gain greater energy efficiency and occupant productivity through improved technology and operations. New technologies making personal preferences more achievable and manageable will also be covered.

Presenters: Satish Kumar, Lawrence Berkeley National Laboratory; Kannan Rengarajan, Cape Design Engineering; Bob Tamblyn, Tamblyn Consulting Services

Sessions

(continued)

"Great subjects and speakers. This is a great opportunity to

Tuesday, Session 4: 10:30 a.m. – 12 p.m.

EYE-OPENING LIGHT TECHNOLOGY

Intent: To learn more about the latest in lighting research and technology and how to avoid problems in these areas.

Description: Even though lighting seems to be the energy-efficiency retrofit everybody has already performed, lighting products continue to rapidly evolve and improve. Because lighting energy use is a large 'pie slice' for most facilities, it is important to stay abreast of lighting technology for existing facilities and for careful selection in new construction and retrofit projects. Learn about applying the latest research on how the eye perceives brightness, LED lighting and dual mode task-ambient systems.

Presenters: Sam Berman, Lawrence Berkeley National Laboratory; Joby Schilling, The Schilling Group, Inc.; Danny Orlando, Environmental Protection Agency; Roy Hughes, BC Hydro

O&M for Energy Efficiency

Monday, Session 1: 10:30 a.m. – 12:30 p.m.

OPERATIONS & MAINTENANCE FROM "A" TO "RCM"

Intent: To define why O&M is important and present some of the general approaches and strategies for an effective O&M program.

Description: For years, energy engineers have been discussing the potential for energy efficiency gains through improvements in O&M. Now we have the proof to support the argument that it is important to proactively operate and maintain your energy-intensive mechanical and electrical systems (and don't forget the added benefits of extended equipment life and improved building occupant comfort). Find out more about these benefits and how to begin setting up a proactive O&M program at your site. O&M best practices including reliability-centered maintenance (RCM) programs will also be discussed.

Presenters: Ab Ream, Department of Energy; Greg Sullivan, Pacific Northwest National Laboratory; Brian Chopp, Plexus Scientific Corp.

Monday, Session 2: 2:30 p.m. – 4 p.m.

FINDING O&M IMPROVEMENT OPPORTUNITIES

Intent: To show how to plan a site O&M audit and where to find some of the best opportunities.

Description: Getting started with the right tools and strategies is an important first step. Find out some of the tools and tricks of the trade, and learn the factors to consider when developing an O&M program and audit strategy for your site. To help get you started, there will be a virtual audit showing some of the obvious as well as not-so-obvious opportunities awaiting you. Join us if you want to find out "What's Wrong With This Picture."

Presenters: Marty Nelson, Tetra Tech, Inc.; Steve Sain, Sain Engineering Associates, Inc.; Millard Carr, Energy Management Solutions, Inc.

Tuesday, Session 3: 8:30 a.m. – 10 a.m.

METERING: THE EYES AND EARS OF O&M

Intent: To present the why, when, what, how and who of metering for improved O&M and energy efficiency.

Description: The old adage is true: You can't manage what you don't measure. That's why metering is a critical component of a successful O&M program. Learn the basic concepts and strategies for a facility metering/sub-metering program including why metering is important, when it should be applied, what are the available metering technologies, how the metered data should be used and what resources are available if you have metering questions. Energy information services that help O&M managers collect, analyze and act on metered data will also be discussed.

Presenters: Lynn Fryer, E Source; Joe Polaski, MeterSmart

get out and find out what other agencies are doing for energy savings."

Bill Babbin

U.S. Navy

Tuesday, Session 4: 10:30 a.m. – 12 p.m.

COMMISSIONING APPROACHES

Intent: To introduce some of the approaches available to commissioning.

Description: Commissioning refers to a process that ensures equipment and systems are operating as intended or required. Energy and cost savings recorded at numerous buildings from commissioning energy intensive equipment are typically in the range of 12 to 30 percent. There are several commissioning approaches available to owners and operators of existing buildings. Two of these approaches – recommissioning/retro-commissioning and continuous commissioning – will be discussed. Learn the differences and decide which approach best fits your needs.

Presenters: Phil Welker, Portland Energy Conservation, Inc.; Dan Turner, Texas A&M University

Tuesday, Session 5: 1:30 p.m. – 3 p.m.

BUILDING AND EQUIPMENT CONTROLS

Intent: To present information and ideas that, when implemented, will improve the operation of building and equipment controls.

Description: Do you have problems keeping your control systems operating properly? Are you fully utilizing your control systems capabilities? Are you sure? Actually, these issues confront most building owners and operators. Find out more about these problems and the solutions to get and keep your control systems working better. You'll leave with the resources you need to get your buildings and systems back under control.

Presenters: John House, Iowa Energy Center; Carl Lundstrom, EMC Engineers

Wednesday, Session 6: 8:30 a.m. – 10 a.m.

EMERGING O&M TECHNOLOGIES

Intent: To present information on new O&M technologies working their way into your buildings.

Description: New O&M technologies that are just now coming to market are becoming smarter and more convenient while providing expanded overall capabilities. Find out how energy information systems are being used now to improve building O&M and where this particular application is headed in the future. Hear about wireless sensors that will allow for greater application of sensors and controls in existing buildings at reduced costs. Learn the latest about automated diagnostics - systems that monitor and analyze equipment operations, identify out of tolerance conditions and diagnose problems and solutions. Discover just how sophisticated O&M is becoming.

Presenter: Paul Allen, Reedy Creek Energy Services

Wednesday, Session 7: 10:30 a.m. – 11:30 a.m.

CASE STUDIES OF EMERGING O&M APPROACHES

Intent: To provide examples of how emerging O&M approaches have been implemented and the benefits realized.

Description: Implementing new O&M approaches is easier said than done. However, the benefits are often well worth the effort. Find out about the efforts and the benefits realized from implementing two new O&M approaches: a reliability centered maintenance program at a NASA research facility and web browser and PDA interfaces for computerized maintenance management systems. If you snooze, you lose, so don't let these new approaches pass you by!

Presenters: Rick Danks, NASA Glenn Research Center; Clark May, Johnson Controls, Inc.

"The sessions opened my eyes to bigger visions and me confidence to build a successful energy

Sustainable Building Design

Monday, Session 1: 10:30 a.m. – 12:30 p.m.

SUSTAINABLE BUILDINGS AND PROJECTS: BEST PRACTICES FROM EUROPE

Intent: To explain the principles and practicalities of sustainable design, construction, and urban development.

Description: Much has been made in policy and practice about sustainable urban design and planning, but what does it actually mean to develop in a sustainable way at the individual project scale? Who has responsibility for sustainable outcomes, and how can they be facilitated? Get the answers to these questions from experts who will describe the sustainability principles we should be working towards, and the planning, design, and development processes that are most likely to deliver sustainable developments. In addition, learn about the contribution of cement and concrete to achieving more sustainable buildings, implementing responsible specification, design, and construction guidelines, and understanding the critical balance between responsible design and sustainable operation of buildings. European case studies will be used to demonstrate the extent to which improvements can be made on even the smallest of projects.

Presenters: Jacqueline Glass, Oxford Brookes University, U.K.; Katie Williams, Oxford Brookes University, U.K.

Monday, Session 2: 2:30 p.m. – 4 p.m.

BUILDING INTEGRATION

Intent: To discuss the sustainable design and energy conservation features employed by the Pentagon Renovation Program.

Description: The Pentagon has never undergone a major renovation in its 60-year history, and no longer can meet the demands placed on it by the people responsible for operating the United States military. The Pentagon Renovation Program (PENREN), is responsible for removing thousands of tons of hazardous material used during original construction, and rebuilding the Pentagon's interior to meet or exceed current building codes. Learn about PENREN's unique acquisition approach, which uses award fees and incentive fees to reward the design-build team for innovation, problem solving and attention to energy and environmental concerns.

Presenter: Mike Sullivan, Department of Defense

Tuesday, Session 3: 8:30 a.m. – 10 a.m.

ENERGY AND ENVIRONMENTAL SECURITY

Intent: To explore the extent to which federal, state, and local governments, working with the private sector, not-for-profits and other organizations, have improved security against terrorist threats to energy and environmental systems.

Description: Almost two years have passed since the terrorist attacks of September 11, 2001, which re-shaped discussions about security within the United States and caused fundamental re-prioritization of governmental programs to counter further threats. After an initial flurry of activity, how well have new goals and programs (including funding) been sustained? Have we become safer? What lessons have we learned, and what more needs to be done? Examine with us how threats of terrorism have impacted energy and environmental programs and what steps you can take to increase security and the quality of life at your facility.

Presenter: Randall Yim, National Preparedness Team and General Accounting Office

obtainable goals with continued training and updated products that give management program for Hawaii.”

Kenneth Stacy

Hawaii Army National Guard

Tuesday, Session 4: 10:30 a.m. – 12 p.m.

DISNEY’S “ENVIRONMENTALITY PROGRAM”

Intent: To provide an overview of Disney’s Energy and Environmental Program.

Description: Join us for a behind-the-scenes tour of Disney’s Corporate “Environmentality Program,” including environmental education and outreach programs in Florida and California, water conservation initiatives, recycling programs, energy conservation initiatives, and waste minimization and composting activities. Included will be a demonstration of Disney’s innovative web-based Energy Information System.

Presenters: Paul Allen, Reedy Creek Energy Services; Brett Rohring, The Walt Disney Company

Tuesday, Session 5: 1:30 p.m. – 3 p.m.

WHOLE BUILDING DESIGN

Intent: To show how sustainable design/development and whole building design has evolved, how it is being used now, why it is important and how it fits in with energy security and flexibility.

Description: Learn from experts about the evolution of sustainable development within the U.S. Department of Defense. This issue, which includes pollution prevention, greening initiatives, and environmental concerns, has driven design policies at the Department. Hear how sustainable design has been applied in military construction projects and how the *Whole Building Design Guide* was developed.

Presenters: Get Moy, Department of Defense; Earle Kennett, National Institute of Building Sciences

Wednesday, Session 6: 8:30 a.m. – 10 a.m.

THERE’S NO SUCH THING AS A FREE THERMODYNAMIC LUNCH

Intent: To learn effective ways to control moisture in buildings.

Description: Everything you ever wanted to know about controlling moisture in buildings -- but were afraid to ask -- will be presented. There may be more insight packed into this session than most of us “green weenies” can bear. It takes a lot of energy to control water in buildings, especially in the U.S. South. See how water gets into a structure, why it doesn’t leave and how architectural flaws become HVAC headaches. Moisture-laden outside air poses real problems for proper ventilation and air-conditioner sizing. In addition to the technical issues, specific recommendations for providing adequate ventilation and moisture control in hot/humid climates will be given.

Presenter: Joseph Lstiburek, Building Science Corp.

Wednesday, Session 7: 10:30 a.m. – 11:30 a.m.

INCORPORATING SUSTAINABLE DESIGN IN FEDERAL INSTALLATIONS

Intent: To learn about the design-build approach, the strategies of sustainability and the practical aspects of construction and maintenance.

Description: Federal installations, by virtue of their complex needs, face many hurdles when incorporating sustainable design principles. Acquisition, project management, construction and operation all are impacted. Hear about success stories to help you better tackle this difficult, but often rewarding, challenge. Case studies will illustrate the lessons learned in incorporating sustainable development policies and practices at Department of Defense facilities.

Presenters: RADM Michael R. Johnson, U.S. Navy; Teresa R. Pohlman, Department of Defense

Sessions

(continued)

"This is the *one* energy conference I know I want to attend every year.
located together for 2-3 days.

Transportation

Monday, Session 1: 10:30 a.m. – 12:30 p.m.

FACE-TO-FACE WITH THE OEMS: EXCITING CHOICES IN LIGHT AND MEDIUM AFVS

Intent: To showcase the variety of alternative fueled vehicles on the market and their place in federal fleets.

Description: An alternative fueled vehicle (AFV) review will showcase AFVs available from the big assembly lines using "off-the-shelf" technologies that incorporate alternative fuels in your favorite vehicle. Representatives from Ford, Toyota, Honda, General Motors and Daimler Chrysler will discuss the products their companies will be offering the federal government during the next procurement cycle. Ask the manufacturers specific questions about your fleet vehicle needs. We'll look at a variety of cars and light duty trucks, including hybrids and neighborhood electric vehicles (NEV), as well as the warranties offered and information on service plans.

Presenters: Mary Nickerson, Toyota; James Mellon, General Motors; Dave Henry, Ford Motor Co.; Jim Snider, Daimler-Chrysler

Monday, Session 2: 2:30 p.m. – 4 p.m.

MEETING AFV REQUIREMENTS: WHAT FEDERAL FLEETS NEED TO KNOW

Intent: Inform participants of the policies and programs available in pursuit of meeting Executive Order 13149 mandates and explore the wealth of information available on the web.

Description: EO 13149 promotes the increased use of alternative fuels in government vehicles. If you are having a hard time meeting EO 13149, this is the place for you! We'll provide guidance on federal fleet policy for meeting EPA requirements and EO 13149. We'll show you how to locate fuel source infrastructure in proximity to your fleet. A representative from Clean Cities will explain how voluntary programs can make a difference and how they have partnered with local cities in your area. In addition, we will have a GSA representative on hand to talk about the leasing

program and alternative fuel choices in all makes and models to help you achieve your goals.

Presenters: Shabnam Fardanesh, Department of Energy; Kevin O'Connor, National Renewable Energy Laboratory; Kevin Gibson, General Services Administration

Tuesday, Session 3: 8:30 a.m. – 10 a.m.

OPTIONS FOR FUEL CHOICES THAT FIT YOUR NEEDS

Intent: To provide you with information on compressed natural gas, liquefied natural gas, ethanol and biodiesel to assist in making the fuel choice that best suits your fleet needs.

Description: We'll answer your questions on the various fuel choices for alternative fuel vehicles and help you decide which is right for your fleet. An overview of fuel availability and safety and security of fuel choices, including storage basics, will be addressed. Learn about special considerations that might be of concern in the case of vehicular or fueling accidents. We'll discuss slowtime fill refueling and the benefits for on-site refueling without the expense of installing a traditional fueling station.

Presenters: Phil Lampert, National Ethanol Coalition; Pam Serino, Defense Energy Supply Center; Richard Kolodziej, Natural Gas Vehicle Coalition

It is always good and it facilitates project management because key personnel are all
It is a *working* conference as well as an informative one."

Bob Harvey

U.S. Navy

Tuesday, Session 4: 10:30 a.m. – 12 p.m.

MAKING BIG CHOICES: HEAVY DUTY AFVS AND FUEL CHOICES

Intent: To introduce the product lines available for heavy-duty trucks, buses and heavy equipment using alternative fuels.

Description: An overview will be given on the variety of heavy-duty engines, vehicles and equipment on the market today that operate on alternative fuels, including the technology behind them. We'll take a peek at what is available for trucks, buses and diesel engine alternatives.

Presenters: Glen Chrusciel, John Deere; Charlie Ker, Cummins Westport; Kevin Campbell, Clean Air Partners

Water Resource Management

Tuesday, Session 5: 1:30 p.m. – 3 p.m.

WATER 101

Intent: To provide participants with an introduction to comprehensive water conservation opportunities and requirements.

Description: If you are new to water efficiency or just need a general refresher, this is the session for you. Water efficiency goals are part of Executive Order 13123 and the Energy Policy Act. Learn about the importance of water efficiency for both the facility and the wider community. Find out how to improve water use efficiency at your site and meet the new federal requirements in this area. Opportunities and benefits are there, and general rules of thumb will be presented to help you successfully manage water use at your site.

Presenter: Tom Horner, Water Management, Inc.

Wednesday, Session 6: 8:30 a.m. – 10 a.m.

DEVELOPING WATER MANAGEMENT PLANS

Intent: To show models for developing water management plans from both an agency and a facility level perspective.

Session Description: Executive Order 13123, which set goals for reducing federal water usage, requires agencies to develop water management plans for most of their facilities. Learn how one agency developed a process to assist facilities in more easily meeting the planning requirements. In addition, you'll hear about one facility's water management plan and the simple process used to develop it.

Presenter: Anna Hoenmans, National Renewable Energy Laboratory

Wednesday, Session 7: 10:30 a.m. – 11:30 a.m.

IMPROVING PROCESS WATER EFFICIENCY

Intent: To showcase methods for improving the efficiency of water used in industrial processes.

Description: The focus of water conservation efforts is often on domestic water use. While this can be significant in many facilities, process water use can overshadow domestic use. Improving water efficiency can reap sizable savings because of the energy, chemical and other inputs to the water that make it useful in the process. You will hear highlights of successful conservation projects in industrial processes, with a focus on how project opportunities were identified, the technological and operational solutions and the results of the implementation.

The Energy 2003 Product/Service Exposition

A highlight of Energy 2003 will be an expanded exposition. Attendees will learn about the latest energy-saving products and services. Exhibitors will have access to a \$10 billion federal and military market. To obtain exhibit information or suggest a potential exhibitor, contact Exhibit Promotions Plus, Inc. (410/997-0763, 301/596-3028; fax: 410/997-0764, email: energy@epponline.com). Updated exhibitor lists will be posted at www.energy2003.ee.doe.gov.

CURRENT AND PRIOR EXHIBITORS INCLUDE:

A & K Energy Conservation Inc	Duro-Last Roofing Systems Inc	Magna Drive Corp.	Solar Outdoor Lighting Inc.
Advanced Energy Solutions LLC	Dynamic Energy Concepts	Measuring & Monitoring Services	Solar Turbines Inc.
Air Force Civil Engineer Support Agency	Energy Systems Group LLC	Metal Construction Association	Solar Unlimited Inc.
Air Strata Marketing LLC	Energy User News	Metaloptics	Southern Company Energy Solutions
Alerton Technologies Inc.	EnLink Geoenergy Services Inc.	Mooncell USA	Southwest PV Systems Inc.
Alliant -Cogenex	Envenergy	MSC Specialty Films Inc./Bekaert Specialty Films	Spirax Sarco Inc.
Allied Energy Systems	ESRI	National Energy Technology Lab	Staefa Control System
Allied Window Inc.	EV Global Motors Co.	National Fenestration Rating Council	Strategic Energy
American Honda Motor Co. Inc.	Exelon Services	National Lighting MSC	Strategic Resource Solutions
Applied Water Technologies Inc.	Falcon Waterfree Technologies	National Renewable Energy Laboratory	Systems Corp.
Automated Energy Inc.	Farnsworth Group	Natural Lighting Co Inc.	TAC Americas
Automated Logic Corp.	Fiberstars Inc.	Networks Enterprises Inc.	Take Note Company Inc.
Baldor Electric Co.	First Security Leasing Inc.	Noren Products	Teng and Associates
Bayview Technology Group LLC	Ford Motor Co.	Noresco	The Ark Enterprises
Bostonia Federal Leasing	General Services Administration	Oak Ridge National Laboratory	The Steel Grip Inc.
Building Green Inc.	Geothermal Heat Pump Consortium	Pacific Northwest National Laboratory	The Trane Co.
Burns & McDonnell	Goettl Air Conditioning Inc.	Panasonic Ventilation & Lighting	Therm-O-Lite Inc.
CH Guernsey & Co.	Graybar Electric Co Inc.	Philips Lighting Company	Tiger Natural Gas Inc.
Calmac Manufacturing Corp.	Greening America	Power Efficiency Corp.	Toyota Motor Sales
Capstone Turbine Corp.	H2O Applied Technology	Power Measurement	Triatek Inc.
Carmanah Technologies Inc.	Harding ESE	Powerlight Corp.	TRICOIL, Sensible Equipment Co
Catalyst Power	Heat Pipe Technology Inc.	Prairielands Energy Marketing Inc.	Tridium Inc.
Central Boiler Inc.	HEC Energy and Design Services	Proation Systems	Trigen Development Corp.
CH2MHill	Honeywell International	Profile Systems LLC	Tristem Inc.
Chevron Energy Solutions	Howard Industries Inc.	RF MacDonald Co.	Trox USA
Clearwater Inc.	Ingersoll Rand	Radiant Optics Inc.	U.S. Department of Energy
CMS Viron Energy Services	Internet Energy Systems	Realenergy Inc.	U.S. EPA Energy Star Program
Co-Energy Group LLC	Intirion/Micro Fridge	Regency Technologies Inc.	Veris Industries LLC
Comfort Systems USA	Johnson Controls Inc.	Reliant Energy Solutions Inc.	Warner Technologies Inc.
Comverge Technologies	KMC Controls Inc.	RoofMart International Inc.	Water Furnace International Inc.
Constellation Energy Source	Kreiss Johnson Technologies Inc.	RTP Company	Waterless Co LLC
CP Films Inc.	Laing Thermotech	Safe Passage Systems Corp.	Water Management Inc.
Cristopia Thermal Energy Storage Inc.	Lawrence Berkeley National Laboratory	Schott Applied Power	Water Management Services Inc.
Custom Energy LLC	Leviton Manufacturing Co.	Science Applications Int'l Corp.	Way2Glo Inc.
Cutler Hammer	Lifesource Water Systems Inc.	Select Energy Services Inc.	Westinghouse Light Management Systems
Defense Energy Support Center	Lifespring Resources Inc.	Sempra Energy Solutions	World Energy Solutions Inc.
Defense Supply Center	Ludeca Inc.	Silicon Energy	Xenergy Inc.
Demarco Energy	Lutron Electronics	Sioux Steel Co/Bob Smith Sales	York International

Optional Events

Complete details on each of these tours are available on the workshop web site (www.energy2003.ee.doe.gov). Tours have minimum and maximum registration requirements and space is limited. All tours include round-trip bus transportation. Tour details are subject to change, so check the web site for current information. You can register for the tours by sending in a completed registration form (see page 29) or by using the secure online registration form.

TECHNICAL TOURS

Sunday, August 17

Tour No. 1

FLORIDA SOLAR ENERGY CENTER AND KENNEDY SPACE CENTER

8:30 a.m. – 5 p.m.

Buses will take you to Florida's east coast for a tour of the Florida Solar Energy Center -- one of the world's most energy-efficient buildings. You'll see the off-the-shelf technologies that have dramatically cut the Center's utility bill. Then you'll go to the nearby Kennedy Space Center. Your tour includes admission to the Center where you can view the many displays, watch the IMAX movies and take the bus tours.

Cost: \$45

Tour No. 2

ENERGY-EFFICIENT OFFICE BUILDINGS

9 a.m. – 3 p.m.

This will be a bus trip to one or more energy-efficient buildings in Central Florida, with a guided tour of the facility and a close-up look at the building features.

Cost: \$35

Tour No. 3

BEHIND-THE-SCENES AT WALT DISNEY WORLD

1 p.m. – 4 p.m.

Enjoy Disney's spectacular 3-hour "Innovation in Action" tour for a glimpse of the park that tourists never see. You'll journey beneath the Magic Kingdom to visit support services in the tunnel, see the Materials Recovery Facility where Disney reuses, reduces and recycles materials, stop at the nursery and tree farm to see Disney horticulturists in action, and get an up-close look at many other facilities and services that make Disney so special. *Cost: \$79*

GOLF TOURNAMENT

The Energy 2003 Invitational Golf Tournament will be held Sunday, August 17. Full information on the tournament is available at www.energy2003.ee.doe.gov

Optional Pre- and Post- Workshop Programs

Pre-Workshop Programs

*Wednesday, August 13 through Friday, August 15:
8:30 a.m. – 4:30 p.m.*

FUNDAMENTALS OF MEASUREMENT AND VERIFICATION: APPLYING THE NEW IPMVP

Proven energy savings are playing a significant role in financing energy management programs and are emerging as the basis for some emissions trades. While interest in savings data is growing, the state of the art in determining savings has also been rapidly evolving. This seminar will review current fundamental methods of measuring and verifying savings, specifically reviewing the International Performance Measurement and Verification Protocol (IPMVP). Attendees will learn the process of designing a proper M&V program for their projects, considering current topics such as cost/accuracy tradeoffs, baseline adjustments, the role of stipulations, maintaining space conditions, the role of verifiers and the data needed for emissions trading. Examples of specific techniques will be presented while addressing common pitfalls in using utility bills, measurement equipment, and computer simulations. The Certified Measurement and Verification Professional (CMVP) exam will be given on Friday afternoon, August 15. (2 CEUs, equal to 4 credits toward CEM recertification).

Instructor: John D. Cowan, Environmental Interface Limited

Fees: Seminar only: \$1,050 for government, non-profit and AEE members; \$1,150 for non-members. (Note: Registering for the seminar does not automatically register you to take the CMVP exam.). Certification application and examination: \$400.

To Register: call Valerie Oviatt at 770-925-9633. For more information: call Ruth Marie at 770-447-5083, extension 210.

*Thursday, August 14 and Friday, August 15:
8:30 a.m. – 4:30 p.m.*

SKILLS UPDATE III FOR CERTIFIED ENERGY MANAGERS

This seminar, sponsored by the Association of Energy Engineers, is intended for professionals who already have the CEM credential. The presentation is a follow-up to the popular "Comprehensive Five-Day Training Program for Energy Managers" and is presented by the same instructors. It addresses several advanced topics that

are not fully covered in basic seminars, including new technologies for HVAC systems; commissioning, recommissioning and continuous commissioning; solar energy technologies; energy management in pumping systems and infrared imaging and energy management. (1.6 CEU, equal to 3.2 credits toward CEM recertification).

Instructors: Wayne C. Turner, Oklahoma State University; Barney L. Capehart, University of Florida.

Fees: \$950 for government, non-profit and AEE members; \$1,050 for non-members.

To Register: call Valerie Oviatt at 770-925-9633. For more information: contact Ruth Marie at 770-447-5083, extension 210.

Sunday, August 17: 8 a.m. – 5 p.m.

UNDERSTANDING THE ANSI MANAGEMENT SYSTEM FOR ENERGY 2000 (MSE 2000)

Learn about the nationally adopted ANSI/MSE 2000 standard and how you can use it to build an energy program that will sustain energy savings and continuously identify opportunities. Get access to experts who can answer your questions and help you plan your next steps for implementing MSE 2000 in your organization. A step forward in the evolution of energy management practice, MSE 2000 will lead to proven results and continuous improvement in energy management practices and energy efficiency.

This workshop will introduce the foundation of a management system for energy, teach you how to apply MSE 2000 in your organization, show the difference between a management system and a technology fix, help you get started with implementing MSE 2000, examine the MSE relationship to other management systems such as ISO 14001 and ISO 9001 and identify available resources. It is sponsored by FEMP's Industrial Facilities Program.

Instructor: William Meffert, Economic Development Institute's Energy and Environmental Management Center at Georgia Institute of Technology.

There is no fee for this program, but seating is limited to 30 participants. For additional information: visit www.industry.gatech.edu/EEMC.

To Register: contact donna.ennis@edi.gatech.edu.

Sunday, August 17: 1 p.m. – 5 p.m.

INTRODUCTION TO GEOTHERMAL HEAT PUMP TECHNOLOGY FOR FEDERAL ENERGY PROFESSIONALS

As a federal energy professional, are you faced with resource cutbacks and high power costs? If so, you need to attend this workshop sponsored by the International Ground Source Heat Pump Association.

This course will provide a detailed overview of the design issues relevant to commercial and institutional ground-source heat pump systems, including ground-coupled systems and ground water source systems. Students will learn about the different types of systems and their advantages and disadvantages, as well as building loads, zoning and equipment selection.

Attendees will also learn about site characterization, heat exchangers, piping, pumping, water-related issues, ventilation air requirements, cost containment, and hybrid ground-coupled heat pumps.

Instructors: John Shonder, Oak Ridge National Laboratory; Phil Schoen, Geo-Enterprises Inc.; Larry Eitelman, Florida Heat Pump Manufacturing

Fee: \$50.

To Register: contact Shelly Fitzpatrick at 404-744-5175 or shellyd@okstate.edu.

Sunday, August 17: 2 p.m. – 4 p.m.

HOW TO DO BUSINESS WITH THE FEDERAL GOVERNMENT

Come learn from the experts who will assist manufacturers and vendors with selling their products and services successfully to the federal sector. It will provide tips and advice from the four agencies responsible for 85 percent of all government contracts/procurements. Get your questions answered by these procurement specialists!

Moderator: Teresa Nealon, National Renewable Energy Laboratory. **Panelists:** Tony Armentani, Department of Defense; Jerry Zimmer, Department of Energy; David Gibson, General Services Administration; Pat Geisinger, General Services Administration; David Wansley, National Aeronautics and Space Administration

There is no charge for this workshop and **no advance registration is required.**

Post-Workshop Programs

Wednesday, August 20: 2:30 p.m. – 4:30 p.m.

BIOMASS AND ALTERNATIVE METHANE FUEL (BAMF) SUPER ESPC UPDATE

This meeting will update the federal community and other project stakeholders on the latest activities of the BAMF Super ESPC program and provide an excellent opportunity to network with others in the industry.

This program, the latest of FEMP's alternative financing vehicles, is designed to assist federal facilities reduce energy consumption and utilize renewable energy resources, such as wood wastes, landfill gas, and waste-water treatment digester gas, as well as coal bed methane. Like DOE's other Super ESPCs under BAMF, energy upgrades are made by private energy service companies (ESCOs) that are then paid back over time from guaranteed energy savings. The ESCOs also finance the costs of the preliminary and detailed energy studies so that the customer facilities can avoid the delay and uncertainty of receiving capital appropriations. A project under BAMF could result in increased energy security by replacing conventional fuels with renewable resources; reduced greenhouse gas emissions, and independence from the utility grids by fuel switching and on-site electric generation.

This session will be of interest to a broad group of Energy 2003 attendees. If you are with a federal agency and have an interest in a BAMF project, this session will allow you to meet all the BAMF ESCOs at once. However, for lenders, engineering firms, contractors and other project stakeholders, this session provides an excellent opportunity to hear updates on this exciting program and network with others in the industry.

Instructors: Biomass experts from the Department of Energy

There is no fee for this program, and advance registration is not required.

To Register: contact Danette Delmastro at 202-586-7632 or danette.delmastro@ee.doe.gov.

Optional Pre- and Post- Workshop Programs *(continued)*

Wednesday, August 20: 3 p.m. – 5 p.m.

LABS21 FEDERAL LABORATORY FORUM

Join your peers and colleagues from the federal laboratory community for a focused discussion on improving laboratory performance, including energy efficiency. Various Labs21 tools, including environmental performance criteria for evaluating laboratory design, benchmarking opportunities and case studies and best practices, will be presented to provide a framework for the discussion. We invite you to actively participate and raise issues and questions during the session. The discussion can help lay the groundwork for a new generation of laboratories within the federal sector. For more information, visit www.epa.gov/labs21century/training. **There is no charge** for this session.

Thursday, August 21: 8:30 a.m. – 5 p.m.

LABS21 HIGH-PERFORMANCE, LOW-ENERGY LABORATORY DESIGN COURSE

This course will provide you with a comprehensive understanding of the opportunities to optimize energy performance in new and existing laboratories. Seasoned laboratory designers, energy managers and facilities professionals will discuss energy-efficient lab design, air supply and distribution systems, commissioning, lighting and much more. To encourage and facilitate interaction, course attendance is limited, so register early. For more information or **to register**, visit www.epa.gov/labs21century/training, or contact the Labs21 Workshop Registration Line at 781-674-7374 or meetings@erg.com.

Fee: \$95 (includes the course workbook, CD software containing the *Design Guide for Energy Efficient Research Laboratories*, refreshments and a working lunch).

Thursday, August 21: 8:30 a.m. – 12 p.m.

ENERGY PROJECT FINANCING WORKSHOP

This hands-on workshop provides an overview of the federal government contracting methods available to energy managers, facility technical staff, building managers and contracting officers to implement the installation of energy efficiency and water conservation measures. The contracting mechanisms that will be discussed include utility area-wide contracts, demand-side management, DOE and DoD Energy Savings Performance Contracting and the GSA Federal Supply Schedules.

The course will educate those involved in designing, implementing and contracting on energy efficiency and water conservation projects, show how each of the different contracting mechanisms work and explain their parameters (scope of work). The pros and cons of each contracting mechanism will be discussed.

Instructors: Contracting experts from the Department of Energy, General Services Administration, Department of Defense and financing institutions

There is no fee, but seating will be limited.

To Register: Contact Steve Ganzer at 443-690-6149 or steve.ganzer@cesource.com.



We appreciate the support of



*as a Sustaining Sponsor
and*



and

GE Lighting

as Contributing Sponsors of Energy 2003.

Energy 2003

SCHEDULE INFORMATION

Sunday, August 17 - Wednesday, August 20

OPENING RECEPTION

Sunday.....5 p.m. - 8 p.m.

OPENING PLENARY

Monday8:30 a.m. - 10 a.m.

NETWORKING BREAKFASTS

Monday, Tuesday and Wednesday.....7:30 a.m. - 8:30 a.m.

NETWORKING LUNCHES

Monday12:30 p.m. - 2:30 p.m.

Tuesday.....12 p.m. - 1:30 p.m.

NETWORKING GET-TOGETHER

Tuesday.....6 p.m. - 9 p.m.

CLOSING PLENARY LUNCHEON

Wednesday.....11:30 a.m. - 2 p.m.

EXHIBIT HALL OPEN

Sunday.....5 p.m. - 8 p.m.

Monday10 a.m. - 6 p.m.

Tuesday.....7:30 a.m. - 4 p.m.

FEDERAL ENERGY MANAGEMENT ADVISORY COMMITTEE

Attention: Federal and State Government Officials

Utility and Energy Service Companies

Equipment Manufacturers

Building Design and Management Professionals

Tell Us What's On Your Mind!

The Federal Energy Management Advisory Committee (FEMAC) invites all Energy 2003 participants to attend the committee's annual public meeting on Tuesday, August 19, at 4 p.m.

During Energy 2003, we will continue the tradition of holding a public forum to explore a full range of issues for enhancing energy management in the federal sector. Join other participants in a lively discussion about federal energy policy, procurement and financing, training and technical assistance, new technologies, building standards, O&M procedures and much more!

This is your opportunity to share your experiences directly with DOE Federal Energy Management Officials and the advisory committee.

Executive Order 13123 -- Greening the Government through Efficient Energy Management -- established FEMAC to provide public and private sector input to the Secretary of Energy on achieving energy efficiency goals for the federal sector.

Registration

How to Register

Please read this information before registering.

The registration form for workshop attendees is on the next page. Please use this form if you wish to mail or fax your registration. **Note that the form is also available online for secure web registration** (www.energy2003.ee.doe.gov). You will be sent a confirmation letter when your registration is received.

This form is for workshop registrants only. If you are an exhibitor, contact Exhibit Promotions Plus at 410-997-0763 or energy@epponline.com. If you are a speaker, contact your Track Lead for a speaker registration form and information on the speakers-only web site.

Please note that all participants in Energy 2003 sessions, meal functions, social events and other programs must be registered or signed up for the event. Only fully registered attendees will be allowed in the sessions. Tickets will be sold at the on-site registration table for guests wishing to attend meal functions, social events or tours.

REGISTRATION FEE

Regular registration is \$565. The "early bird" fee is \$465 for registrations postmarked by June 2.

There is a team discount available for four or more registrants from the same organization who register at the same time. Forms must be postmarked by June 2. The team discount fee is \$420 each.

TECHNICAL TOUR REGISTRATION

If you wish to sign up in advance for one of the tours, you can use the registration form. Note that these tours are optional and there is an extra cost for each tour. You can sign up on-site if there is space available. See page 23 for a description of each tour.



PAYMENT INFORMATION

Please make your check or purchase order payable to: Florida Solar Energy Center, Energy 2003. Note that the Florida Solar Energy Center's FEID No. is 59-2924021.

WIRE TRANSFER OR ELECTRONIC FUNDS TRANSFER

If your registration fee will be paid by wire transfer or electronic funds transfer, please reference account number 3703453 on your paperwork so the funds will be properly credited. It would also be helpful to notify us (energy2003@fsec.ucf.edu) when the funds are sent to assure that they are properly credited to your registration.

CANCELLATION POLICY

The registration fee, minus a \$50 service charge, will be refunded for written cancellations received prior to August 8. No refunds after that date. You may substitute attendees at any time by sending written notice of the change prior to August 8. After that date, please bring the information to the on-site registration table at the workshop. Send written notice of cancellation or changes by e-mail to energy2003@fsec.ucf.edu, by fax to 321-638-1010 or by mail to Energy 2003, 1679 Clearlake Road, Cocoa, FL 32922. If you have any questions, call 800-395-8574.

SPECIAL NEEDS

Please indicate any special needs (e.g. vegetarian) on the registration form. We will attempt to honor all special requests. If you require any special services, please send your request to energy2003@fsec.ucf.edu not later than August 1.

Mail or fax the completed registration form to: Energy 2003, 1679 Clearlake Road, Cocoa, FL 32922-5703. Fax: 321-638-1010.

Please do not submit the registration form after August 8. If you are registering after that date, bring this form to on-site registration at Energy 2003.

Workshop Registration Form

Please read the information on page 28 before filling out this form..

Please print clearly.

First Name: _____ Last Name: _____

Title: _____ Name on Badge: _____

Agency/Organization/Company: _____

Site Name/Company line #2: _____

Mailing Address: _____

City: _____ State: _____ Zip Code: _____

Business Phone: () _____ Fax: () _____

E-mail Address: _____

Special Needs: ☐ Vegetarian ☐ Other: _____

Comments: _____

Emergency Contact and Phone: _____

REGISTRATION FEE (select one):

- ☐ Early Registration
(postmarked by June 2)\$465
- ☐ Team Discount
(postmarked by June 2)\$420 ea.
- ☐ Regular Registration\$565
- ☐ One-Day registration\$365
- ☐ Monday ☐ Tuesday ☐ Wednesday

TECHNICAL TOUR REGISTRATION:

(See page 23 for tour descriptions, times and important details. All tours will be held on Sunday, August 17.)

- ☐ Tour #1 (Florida Solar Energy Center and the Kennedy Space Center)
8:30 a.m. - 5 p.m.\$45
No. of tickets: _____
- ☐ Tour #2 (Energy-Efficient Buildings)
9 a.m. - 3 p.m.\$35
No. of tickets: _____
- ☐ Tour #3 (Behind the Scenes at Walt Disney World) 1 p.m. - 4 p.m.\$79
No. of tickets: _____

HOW DID YOU HEAR ABOUT THIS WORKSHOP?

(check all that apply)

- ☐ At Energy 2002 ☐ Online ad/calendar listing ☐ Trade publication/ad
- ☐ Email ☐ Colleague/word-of-mouth ☐ Direct mail/flyer
- ☐ Previous attendee ☐ Another conference/trade show
- ☐ Other: _____

METHOD OF PAYMENT (Select one):

- ☐ Government Training Form ☐ Company Purchase Order
- ☐ Wire Transfer or Electronic Funds Transfer ☐ Check
- ☐ Credit Card: ☐ American Express ☐ VISA ☐ MasterCard ☐ Discover

Credit Card Number: _____

Expiration Date: _____

Total Amount Due: \$ _____

Mail or fax this form to:

ENERGY 2003
1679 Clearlake Road, Cocoa, FL 32922-5703
FAX: 321-638-1010

Pentagon Energy Office
Heating and Refrigeration Plant
300 Boundary Channel Drive
Arlington, VA 22020-3211



"We're Greening the Meeting"

The Energy 2003 planning committee has assured that we leave the smallest possible environmental footprint in Orlando. Green Meeting principles we have instituted include:

- Choosing a city that offers low-cost, frequent ground transportation between our hotel and the airport.
- Selecting a hotel within walking distance of Downtown Disney and Pleasure Island. The hotel also offers free, regularly scheduled shuttle buses to other attractions.
- Working closely with the Wyndham Palace Hotel to assure that green principles are utilized to the extent possible. "These include Wyndham's "Earth-Smart" program that encourages guests to re-use towels that could be used a second time, and changing bed linens

every third day. The hotel also shuts down escalators in "non-use" times and offers, on a space-available basis, hypoallergenic sleeping rooms that use hypoallergenic cleaning materials.

- Urging our attendees to use the paperless registration on our secure web site. More than half of last year's attendees registered online. We use e-mail to confirm registrations.
- Keeping printed materials to a minimum. Rather than distributing paper copies of presentations, we post presentations on the web site after the workshop.

Please...

... help us avoid wasteful duplicate mailings. If you receive more than one copy of this brochure, need to have your address corrected or wish to be removed from our mailing list, please fax a note with the corrected version to (321) 638-1010. Thank you.



Printed on recycled paper using soy-based inks to conserve resources.